MERCHANDISING SUPPLEMENT OF Electricity on the Farm

With which is consolidated The RURAL ELECTRIC DEALER. Established 1920. The only publication devoted exclusively to the electrification of towns and farms and reaching the power companies and electric dealers serving this rapidly developing rural market.

Vol. 2 DECEMBER, 1929 No. 12

Christmas—A Sales Suggestion

It is a problem for the average person to select Christmas gifts which will be useful and appreciated. Hence many electrical dealers supplying rural districts have found it a mighty profitable move to circularize their entire list of farm prospects early in December suggesting that they make it an electrical Christmas by purchasing and presenting such appliances. The average farm family usually limits its purchases of electrical equipment to those items which come under the classification of necessities, and, as a rule, deprive themselves of many useful electrical appliances which to their minds are not really needed. Thus there are many useful gifts which might be selected.

The benefits of Christmas customers do not end with Christmas purchases. A customer who will come into your store to buy a gift for a friend may be counted upon to patronize you again at a later date when he is in the market for equipment for himself. Thus your efforts to build up Christmas sales have a twofold effect.

In calling the attention of prospective customers to your Christmas line, care should be taken to list all of the appliances which might serve as gifts, giving the price of each. And at the same time, be sure that your stock of advertised appliances is maintained so that you can fill orders without delay. There is always a rush at the last minute on the part of those who delay their Christmas shopping, and nothing creates more dissatisfaction on the part of a prospective purchaser than to be told that the particular appliance he has in mind is out of stock.

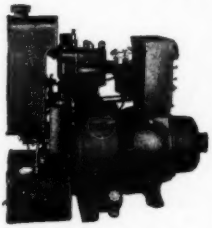
If you would reap the maximum benefits from Christmas purchasing, get your announcements out at once, and be prepared to give prompt and full service.

*ELECTRICITY ON THE FARM (except this "Merchandising Supplement" printed on tinted paper) has already been placed in the hands of more than 140,000 farmers along the rural lines operated by more than 200 power companies. Hence the articles you find in this copy will be read, or have already been read, by many of the farmers in your territory. You are, therefore, in a position to approach these farmers on the subjects with which they are familiar. Your way is paved for increased sales of electrified farm equipment.

Farmers are
"Electricity Wise"
Logical Prospects for
SUNBEAM

The telephone, automobiles, tractors and lights all about them have educated farmers to the advantages of electricity. Every farmer who enters your store is a prospect for electricity on his farm. In addition, there are many prospects among roadside filling stations, garages and suburban homes.

Dealers everywhere have made profits beyond their expectations by displaying and talking this better electric light and power plant. From the sale of electrical appliances, they make added profits. Write today for complete information.



Small batteries carry loads up to 200 watts—plant starts automatically on heavier loads.

SUNBEAM ELECTRIC FARM-LITE

Starts, Oils, Regulates and Stops Itself
SUNBEAM ELECTRIC MANUFACTURING CO.
Dept. 16, Evansville, Ind.
Mfrs. of Railroad Lighting Equipment Since 1883

Cullman
Electric
Pump Drive
¼ to 1 H.P.

Chain drive on motor acts as flexible coupling and prolongs life of gears.

The patented Load Equalizer makes starting easy and minimizes current consumption; self lubricating, easy to install, no foundation required.

Send for literature and prices.

Cullman Wheel Co.
1342 Altgeld St.
Chicago, Ill.

Blue Ribbon
Electric Milker

A Portable Milker Requiring No Installation

The "Blue Ribbon" is a self-contained milker, requiring no pipe lines or extra equipment of any kind. It operates direct from the light socket of either high line or farm light plant. A beautiful catalog and complete information will be sent on request. Write us today.

Electric Products Corporation
7 Bluff Ave., La Grange, Ill.

GUARANTEED "Cost per month of Service"

The New Plan that's a Winner

HERE'S the selling plan for Glass Jar Type of batteries that means more battery. sales—no dissatisfied customers — no arguments — no profit-eating, no unfair adjustments.

You guarantee to a customer *in advance* the maximum amount his battery service will cost per month. (as low as $1.75 per month according to type of battery). Adjustments are made when necessary according to a definite scale which the customer understands at the time of purchase.

This new and finer plan practically wipes away sales resistance. You sell more batteries and make better profits. Your customers are 100% satisfied and there are never any arguments.

Get full details of this up-to-the-minute, successful sales plan. Ask your nearest wholesaler, or write us.

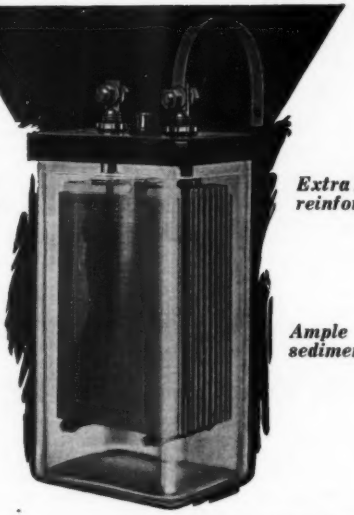
GLOBE-UNION MFG. CO.
22 Keefe Avenue Milwaukee

A selling feature — improved connectors! Big connectors reduce resistance and prevent heating and loss of current.

"The Better Battery"

GLOBE

MADE EVEN BETTER



Five year guarantee

Extra heavy reinforced cover

Heavy-duty plates

Ample sediment space

DEALERS . . . . Improve your Business with WESTERN CABLE BATTERIES

This is no idle statement. We can back it up absolutely, because we guarantee Western Cable Batteries to give the service demanded of it.

If you are a progressive dealer and you are looking for a battery that will give your customers 100% service, write us at once for complete details.

Large production of plates of different kinds for the trade.

WESTERN Cable LONG LIFE BATTERIES

WESTERN CABLE & LIGHT CO.
Baldwin, Wisconsin

Determining the Potential Electric Farm Load

By E. W. LEHMANN.

THE aim of every rural service man should be to completely electrify all power operations on each farm getting service, to a point where the service is rendering the greatest return to the customer and a satisfactory income to the power company. An important step in making this aim a reality is a complete analysis of each farmer's power problem.

E. W. LEHMANN

Before extending the line, the rural service man should know the needs of the individual farmer and have facts about the individual farm to determine the potential load and be able to estimate the income from a farm or from a group of farms. It is assumed that a line would not be built if there were not a possibility of securing sufficient income to justify it. However, it should not be necessary for the farmer to guarantee to make the line pay from the start. The rural service man by knowing the individual farm needs is able to estimate a future load to the end that a more liberal policy might be adopted for extending rural lines. If public utility officials could be convinced that there are opportunities for developing uses of the service beyond a guaranteed point, a more liberal policy would be adopted toward rural line extensions.

There is a need for statistical information in addition to data on which to develop a sound program of merchandizing. The proper time to get this information is *before* rather than after the line has been built. In the Wisconsin Power and Light Company report on their plan for extending electric servce to farms there is a statement that practically every farmer representing a group of other farmers, applying for electric service, will invariably state that the men on the proposed line will be "big users." What evidence does he supply, which indicates that they are big users, more than a generalization?

For the farmer to actually know the possible uses he can make of electric service, and the advantages he will gain, it is necessary that his farming practices be studied, his power problem be analyzed, and his power needs be determined. The thinking farmer would like to know the amount of electric energy he will use, and about what it will cost for complete electrification on his farm. By complete farm electrification is meant electric service used for all power operations which are found practical on other farms under similar conditions. It is up to the rural service men to make these analyses before complete electrification can be possible.

What Are the Needs of the Industry?

We must keep in mind that every electrified industry was electrified on the basis of needs of the industry. The men who electrified the mining industry, the textile industry and the other great

industries of the country were power sales engineers who studied the needs of these separate industries. They were not men who simply call on the industries and took orders for equipment, in an indifferent sort of way, and saw that the equipment was operating. Nor were they "high pressure" salesmen. They were engineers who studied the problem of the industry in a large way. I like to think of rural service men as *farm power sales engineers.* If they are power sales engineers, it is logical that they make an analytical study of the power needs of the agricultural industry they aim to serve.

To be able to analyze the power requirements and actual machinery needs of an individual farm, the rural service man must have first hand information about farming. He must also have a sympathetic point of view toward the farm. He must be willing to study the farmer's problem, whether it is spraying fruit trees, germinating seed corn, brooding chicks or preparing feed. He must recognize the fact that each farm is different. It may be the same general type of farm as another, but it has a different arrangement, and there are different power and labor problems.

The rural service man cannot afford to make the mistake of loading the farmer up with equipment which may prove useless. His first problem, as I see it, is to determine the practical uses that may be made of electricity on each individual farm from the standpoint of efficiency, economy, social life, and health. Or saying it another way, he must determine the practical uses in production and in the home. These practical uses and their power requirements are what I am prone to call the "potential load" of the farm. In addition to determining what this potential load is, the farm power sales engineer's problem is to develop an electric power consciousness in the mind of the farmer, and make all the power applications that are needed.

Every Farm Different

There are a number of factors which determine the potential electric load and which should be studied. First, consider the farm itself. There are a good many power company representatives who make no distinction in their thinking when the term "farm" is used. To them every farm is about the same. This is far from the truth.

Probably the first thing to be considered is the farmstead. What buildings make up the farmstead? What use is made of these buildings? How many rooms are there in the farm house? Is it modern? We are next interested in the farm. Is it a profitable farm? How many acres? What kind of production is carried on? In other words, what are the various enterprises and the size of each enterprise? What is the approximate total income? In general, what are the sources of income on the farm in order of importance? These latter questions all relate to the farm business. After all, making an analysis is nothing more than asking a series of questions, to arrive at certain facts.

Status of the Individual

The next factor which would help to determine the potential use of electricity on the farm is the farmer himself. Is he an owner or a tenant? If he is a tenant, what is his standing? Has he been on the farm a number of years, or is he a new man on the place? What is the term of his lease? How long did he live on the previous farm? Has he a progressive attitude? Is he ambitious and does he desire to have a higher standard of living? Or is he satisfied to simply "get along"? What is his social status? Is he a part of the community?

Another factor which would influence the potential is the labor situation on the individual farm. This relates directly to the size of the enterprise and the kind of equipment needed. If there is an adequate supply of labor to do the jobs that need to be done, it may not be necessary or advisable to use electrically operated equipment, while this would not be the case where the labor problem is an acute

one. But it should not be overlooked that by the use of electrically operated equipment, even where adequate labor is available, the size of the farm business might be enlarged.

The fourth factor which determines the potential is the operations and practices which require mechanical power. What are they? What operations and practices would result in greater economy and greater efficiency from the standpoint of the operator by using electric power?

Finally, the fifth factor (and no doubt there are others) which would tend to determine the potential use of electric service on farms is the equipment already available, including both power driven machines and hand driven machines, as well as power units. It goes without saying that a lot of farmers cannot afford to discard equipment that is giving good service and with which they can do the job, to make use of a new type of equipment and a new type of power which makes the work easier but may not greatly reduce the cost of operation. By knowing the kind of equipment that is available and the length of time it has been in service, the rural service man is in a position to better advise and also to place the proper electrically operated equipment on each farm.

It would be difficult to prepare a survey form for such an analysis

SURVEY OF FARM POWER NEEDS

No..... Date..... Township .....
County.....
Name .....
Address .....
Wants electric service? Yes..... No..... Owner or Tenant .....
Name of Owner.....
Name of Owner.....
Address .....
Type of farming..... Specialty.....
Area of farm..... Acres of tillable land.....
Acres in Orchard..... Acres in other crops.....
.....
No. and kind of live stock: Horses..... Cows.....
Other Cattle..... Hogs..... Sheep..... Poultry.....
Major sources of income, in order of importance.....
..... Number, size
and type of power units in use: Tractor.....H.P. Gas
Engines.....H.P. Machines in use that are power operated
..... Machines in use
that are hand operated.....
Operations for which electric power is needed.....
..... Electrically
operated farm equipment in which interested: Portable Motor.....,
Grain Elevator....., Feed Grinder....., Milker.....,
Cream Separator....., etc.,.....
Undeveloped uses for electricity: Power, Light and Heat.....
.....House is or is not modern. Type of
furnace..... Type of Lighting.....
Type of Water System..... Present power-operated
home equipment in use: .....
Electrically-operated home equipment and appliances in which interested:
Iron....., Sweeper....., Water System
....., Washer....., Ironer.....,
Range....., Refrigerator....., Dishwasher
....., Motors....., Toasters.....,
Immersion Heater....., Curling Iron.....,
Etc. .....

Comments: Use the back of this sheet

that would fit all conditions. In addition to definite information secured about the farm and the farm business, comments about the farmer might well be added. The survey form shown with this article does not contain all the points mentioned above. This form was prepared for making a survey in a fruit area of Southern Illinois where a group of farmers was interested in getting service. The same form could be used for farmers already on a line. W. E. Gould of Central Illinois Public Service Company has the following to say relative to the use of this form. "In regard to the use of Survey Forms for determining farm power needs, I have used about 200 of these and have found them valuable for determining the amount of available business in new territory, and for reference. In making the survey in Johnson County, I used about 75 of these Forms and found them to be very complete. Though much of this Form is not used in individual cases, where dealing with varying types of farming, all items are of importance with the possible exception of the item. Undeveloped Uses for Electric Power, Light and Heat. In dealing with people who do not have electricity all uses must be developed. This one item is the only one which I have not as yet found use for, but realize that this might be used in making surveys of farms already receiving service."

The greatest use for this Form, according to Mr. Gould, should be in keeping the Rural Line Salesman informed as to the equipment already on the farms and that needed by the farmers. He further states, "Many times a farmer advises that he will buy a certain piece of equipment on or about a certain date in the future, and unless this is written down it will be forgotten. Inferior or inappropriate equipment is often placed on the farms by salesmen not acquainted with the farmers' needs or the possibilities for the application of electricity. I am sure that before very long Rural Line Salesmen will have to resort to some such systematic procedure to keep up their quota of sales and eliminate miles of useless driving."

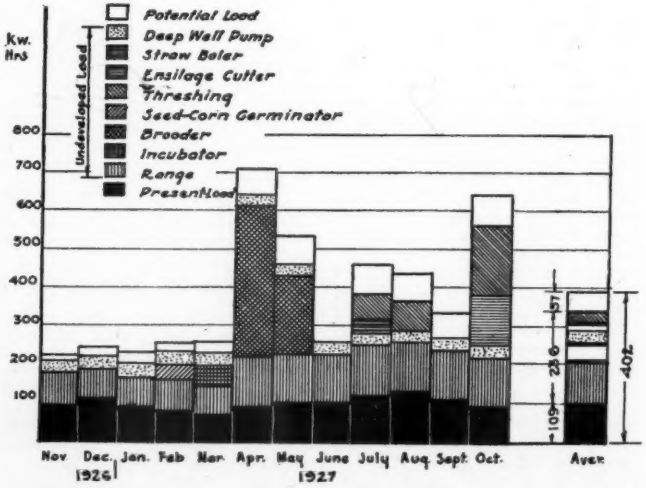


Fig. 1. Estimated Load for a 203 Acre Dairy and Grain Farm

A complete analysis, as outlined, will make it easy to show graphically the possible load of an individual farm or group of farms, which is desirable for making an effective report on a proposed line, or to show the future development of an existing line. Fig. 1 from Bulletin 332, "Electric Power for the Farm," published by the Illinois Agriculture Experiment Station, shows the estimated load for a 203-acre dairy and grain farm. In this chart the actual load is shown, and on top of this we have the additional undeveloped load which is made up of a number of operations carried out on the farm where other kinds of power were used. There are other practices not carried out on this farm such as heating water for poultry,

Present, Undeveloped, and Potential Uses for Electrical Energy on Farm Devoted to Grain and Dairying

Description of use		Energy required: Per unit (kw. hrs.)	Per year (kw. hrs.)	Aver. per month (kw. hrs.)
Present uses				
Lights and household equipment	Light for all farm buildings and minor household equipment		471	39
Refrigerator	Household use only		300	25
Milking machine	10 cows		361	30
5 horsepower portable motor	Grinding feed, elevating grain, and miscellaneous work		174	15
Total			1 306	109
Undeveloped load[1]				
Range	All cooking, 7 months and part 5 months (5 in family)	125 summer, 75 winter	1 250	104
Incubator	400 eggs a year	13.4 per 100 eggs	54	4
Brooder	300 chicks a year	2 per chick	600	50
Seed germinator[2]	Seed corn for 84 acres			
	Water for stock and household	2.15 per bu. 2.85 per 1,000 gals.	43 399	4 33
Deep-well pump				
Ensilage cutter	75 tons a year	1.72 per ton	129	11
Straw baler	10 tons a year	3.5 per ton	35	3
Thresher	566 bushels of oats	.111 per bu.	322	27
	291 bushels of wheat	.265 per bu.	..	..
	690 bushels of soybeans	.265 per bu.	..	..
Total			2 832	236

Description of use		Energy required: Per unit (kw. hrs.)	Per year (kw. hrs.)	Aver. per month (kw. hrs.)
Potential load[3]				
Radio battery charger	For radio during year	10 per month winter, 4 in summer	84	7
Milk cooler	280 pounds of milk a day	.75 for 7 summer mos.	525	44
Poultry water heaters	150 hens, 4 winter months	.5 per 100 hens	30	2
Lights for poultry	150 hens, 4 winter months	.9 per 100 hens	54	4
Total			693	57
Grand total			4 831	402

[1]For operations now performed but not with electric power. [2]Commercial.
[3]For uses that might be developed.

—From Ill. Agr. Exp. Sta. Bul. 332.

lighting the poultry house that are classed as potential load. This distribution and energy requirements are shown in the table from Ill. Bulletin 332.

In applying electric service to the farms of a community, the principle should be recognized that in general the type of farming practiced cannot be radically changed simply to make it possible to make a greater use of electric service. Just because electricity can be made to play an important part on dairy and poultry farms, we cannot expect every farmer who gets electric service to buy more cows and chickens, and build new barns and poultry houses. We must learn to apply electric power to the farms of a particular section *as they are*. They may be grain farms, dairy farms, fruit farms or truck farms.

The type of farm and specific enterprise carried out on the farm determine the applications and the extent to which electric service can be used in production work. Applications in the home remain about the same. However, if electricity is to serve the farmer to its fullest extent it must serve him in the home as well as in the production. Since the farm home and farming as an enterprise are so closely associated, it is essential that the uses of electricity in the home and in the productive side of the farm be combined to make it pay its way, both from the standpoint of improved living conditions and from the standpoint of more economic and more efficient production.

Comparison of Cost of Brooding Chicks

By J. C. Scott.

THE cost for coal oil for brooding 2,000 chicks in the season of 1927 was $50. The next season I used electric brooders, and the cost for current to brood the same number of chicks was $26."

The above statement was made a short time ago by Mr. William Hubbard, Route 1, Everett, Washington, who says further: "Besides the extra cost of coal oil, there was much more work connected with the oil brooders, in continually filling lamps and cleaning wicks, also a constant odor of kerosene and fire hazard from burning oil."

But we should remember that in these days, when every type and description of electric brooder one can imagine is being used, the cost of brooding by electricity is not the same in all cases.

Two 1,000-chick electric brooders were operated side by side in the same building, at exactly the same time, on the poultry farm of M. T. Hokenstad, R. F. D. No. 1, Snohomish, Washington. A separate meter was connected to each brooder, and in a period of thirty-six days one brooder used 570 kilowatt hours and the other 299 kilowatt hours.

In other words, a brooder operated by the same man, and all other conditions being the same, used one-half the amount of current another brooder did.

To get best results with electricity on the farm, it is absolutely necessary to use proper equipment. Generally, the apparatus which uses less current produces better results. This is especially true with electric brooders.

Mr. H. B. Gibbs, poultryman, living near Snohomish, Washington, tells us of another way in which electric brooders have lowered his expenses.

"My fire insurance rate," says Mr. Gibbs, "has been reduced 50 cents per hundred since installing electric brooders.

"Previous to using electrics I had experience with many other brooders, and will never waste my time with anything but electrics again. Others we had to watch continuously, but with the electric brooders we just notice the pilot light and know that everything is O. K.

"Brooding has always meant so much work that since using electric apparatus it seems that I have difficulty in finding something to do."

Diagnosing Plant Troubles by Telephone

By WILLIS PARKER.

WHEN the owner of a farm lighting unit is in trouble, he usually puts in a long distance telephone call to the dealer who maintains a service department in that territory. He wants quick service, too, but since service calls are charged to the customer, it is certain that he would prefer, if possible, to be advised how he might correct the trouble himself.

On the other hand, the dealer never knows when service calls will come in or how many may come in in a day or a week, or whatever period of time he desires to use as a unit. Hence he must get along with as few service men as he possibly can, and when calls come in a bunch, he is frequently in a quandary.

A Good-Will Builder

Jacob Shames, one of the proprietors of the National Arc Light Company of Denver, Colo., distributors and dealers in farm lighting systems over a goodly portion of Colorado, has found that attempting to diagnose the trouble over the telephone is one of the best good-will builders offered by the dealer. After years of experience it is quite frequently possible to question the customer in such detail regarding the troubles with his plant, that just what correction should be made often can be determined and the customer is saved the expense of a service man travelling many miles to his farm to make the repair or adjustment. He says:

"We believe it is a business-building policy to keep from sending out a service man if possible, but to take the time and trouble to endeavor to diagnose the trouble by long distance telephone. Too many service calls and the expense attendant do not make friends for the dealer or the make of electric lighting system he is selling. We get most of our prospects from the friends of satisfied customers. Expenses of repair bills and service charges are not factors making for satisfied customers.

"While the plant we are selling is, we believe, one of the most reliable on the market, still we have service calls because amateurs frequently tamper with the mechanism and get something out of order. We are prepared to give service when it is needed, but it is cheaper for the customer to pay for a long distance telephone bill than to pay for a service man visiting his farm. Hence we strive to help the customer make his own adjustments and repairs by means of a telephonic diagnosis. If he cannot make the adjustment after we have given him the advice, or, if we find that we cannot discern from the answers to our questions what the trouble is, we send a service man as quickly as we can.

"For the most part the troubles with the outfit may be traced to what the user has done to it. Hence the first question we ask is, 'What have you done to it?'

"Even when we have to send a man out, we try to hold the expense to the customer down by charging him for the mileage the man covers, for full time while the man is working on the plant and for half time while the man is travelling."

Too many service calls and the expense attendant do not make friends for the dealer or the make of electric lighting system he is selling.

Delegates to Second Annual Rural Electrification Short Course at the University of Wisconsin

Record Attendance at Short Courses

Middle Western Conferences on Rural Electric Progress Provide Power Companies and Manufacturers with New Confidence and Working Plans

MEETING rooms crowded to capacity and speakers' programs that sometimes overlooked man's need for sleep testified again this Fall to the value of the annual opportunities, known as "rural electrification short courses" which have become an established farm service feature with several agricultural colleges.

At Purdue, under the management of Prof. Truman E. Hienton, it was the "Third Annual", and ran three days with Purdue trouncing Michigan as the entertainment feature and finale. In addition to power company representatives from many states (Douglas Dow and his Detroit Edisoners came full strength, and John McKee registered from way-off Pennsylvania) farmers, county agents and equipment manufacturers swelled the attendance to 150. The program, arranged by the Agricultural Experiment Station in cooperation with the Indiana Electric Light Association, threw new light on old subjects and gave impetus to projects which preliminary research has found worthy. At the banquet presided over by Mr. C. V. Sorenson, President of the Association, Hon. Fred S. Purnell, coming specially from his congressional duties at Washington, and Arthur Huntington, veteran of much high line pioneering, regaled the well-fed bunch with reminiscences and sound advice for the future.

The equipment exhibit in the large hall adjoining the conference room overflowed this year to the third floor, and deserves more than passing mention. While some may feel that academic discussion of applying electricity to farm uses is sufficient, the majority of those present at Purdue seemed to welcome such a complete and varied display, some of the equipment

being in operation and attended by factory representatives anxious to hear complaints and suggestions as well as praise for their assistance in building the rural load. With such excellent accommodations Purdue is likely to make the exhibit of both household and farm electric equipment a regular feature, perhaps maintaining it permanently between conferences for the benefit of the many farmers and extension workers who otherwise would not have a chance to see electricity actually at work in so many different ways.

At Ohio State

The Ohio State "Second Annual" Rural Service Men's Conference, in cooperation with the East Central Division of the National Electric Light Association, was ably conducted by Prof. G. W. McCuen and Secretary I. P. Blauser of the Ohio C. R. E. A. Eighty-five delegates devoted to some phase of better farming registered early enough on Friday to belie any thought of their interest in Saturday afternoon's tie game with Indiana. As a matter of fact, what this meeting might have lacked in numbers it surely accounted for in serious application to the purposes of the conference.

No "short course" ever worked harder at its job of debating the truth and asking questions of every speaker. A high-spot on the program which recommends itself to any committee planning such meetings in the future was the straight-from-the-farm opinions of electric benefits presented by Farmers Bookwalter, Coleman and Andrus. They had nothing to sell, meant what they said, and proved with facts and figures that once any intelligent farmer gets a taste of electric service properly installed it can't be taken away from him; also that inadequate equipment is an unforgivable sin, and that the quality of good equipment is remembered long after the price is forgotten. Manufacturers who may still be inclined to treat lightly the value of power company advisory service to these farmers on the new high lines would undoubtedly save themselves much grief and many lost sales if they could participate in such meetings and hear what the farmer's own pocketbook has to say about them.

Complete programs of both the Purdue and Ohio State conferences were published in our September issue.

At Pennsylvania

More than a hundred representatives from Pennsylvania public utility companies and cooperating manufacturers, attended the first annual Rural Electrification Short Course held at State College, Pa., Oct. 23-24-25. The complete program appeared in our October issue.

It was decided at this meeting to make next year's short course

Record Attendance at Purdue Annual Conference

in the nature of an exposition, where questions could be answered by actual operating tests. Representatives from neighboring states will also be invited to participate. The committee of arrangement plans to meet during the Farm Products Show at Harrisburg in January, after which further details will be announced.

At Wisconsin

Prof. F. W. Duffee of the Agricultural Engineering Dept., and Mr. J. P. Schaenzer, Project Leader of the State C. R. E. A., in cooperation with the Wisconsin Utilities Association, provided another equally interesting program October 31-November 2, for 110 delegates to the Second Annual Short Course in Rural Electrification at the University of Wisconsin.

High spots on the program, which is printed in full below, were the state-wide extension project for putting running water and septic tanks on every farm connected to Wisconsin high lines; the rapidly growing acceptance of the electric motor and small hammer mill for grinding feed, even for the largest herds; the profits that are being made by dairy farmers using electric milk coolers; and the proof of electricity's aid to the poultry industry.

PROGRAM

Thursday, October 31

Morning

Address of Welcome—Dean H. L. Russell, College of Agriculture.

Chopping and Grinding Roughage and Grain—Professor G. Bohstedt, Department of Animal Husbandry.

Grinding Feed with Electric Power—J. E. Stallard, Manager, Keystone Farms, Waukesha, Wis.

Modernizing the Farm Home—Professor K. L. Hatch, Assistant Director of Agricultural Extension.

Afternoon

Water Supply for the Farm—J. P. Schaenzer, Project Leader, Wisconsin Committee on the Application of Electricity to Agriculture.

New Developments in Feed Grinding and Elevating Grain—Professor F. W. Duffee, Department of Agricultural Engineer-

Inspection Trip of Water Supply Systems and Feed Grinding Equipment.

Evening

Banquet—Park Hotel.

Friday, November 1

Morning

Electric Incubation, Brooding and Lighting of Poultry—Professor J. B. Hayes, Department of Poultry Husbandry.

The Ultra Violet Ray Lamp for Use on Poultry—Professor J. G. Halpin, Department of Poultry Husbandry.

Progress in Dairy Refrigeration—Dr. S. R. Poulter, Borden Company, Lake Geneva, Wis.

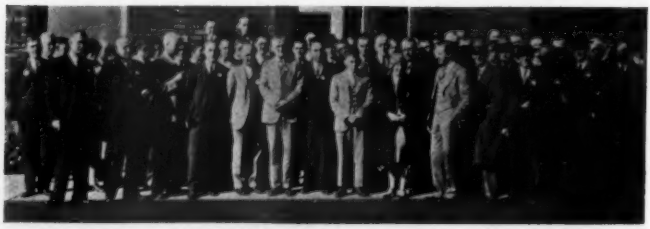
Dairy Refrigeration Records and Inspection of Equipment—J. P. Schaenzer, Project Leader, Wisconsin Committee on the Application of Electricity to Agriculture.

Afternoon

Rural Electrification Publicity—H. T. Murray, Western Manager, "Electricity on the Farm," Chicago, Ill.

Records for the Rural Department—C. C. Bell, Wisconsin Valley Electric Company, Wausau, Wis.

A County Rural Electrification Compaign—A. T. Pamperin, Wis-



Snapshot of Those Attending the Second Annual Rural Service Men's Conference at Ohio State University

consin Public Service Corporation, Green Bay, Wis.

The Fair Exhibit and Demonstrations—R. A. Merrill, Northern States Power Company, Eau Claire, Wis.

Demonstration of Wisconsin Power and Light Company Rural Electrification Truck—E. R. Meacham, Wisconsin Power and Light Company, Madison, Wis.

Saturday, November 3

Morning

Burglar Alarms for the Poultry House—G. A. Rietz, General Electric Company, Chicago, Ill.

Power Transmission—Professor F. W. Duffee, Agricultural Engineering Department.

Mechanical Barn Ventilation—John G. Shodron, Chief Engineer, The James Manufacturing Company, Fort Atkinson, Wis.

The Housewife's Side of the Electric Problem—Professor A. L. Marlatt, Director, Home Economics Department, College of Agriculture.

Filling the Silo with Electric Power—Wm. Kuntz, Merton, Wis.

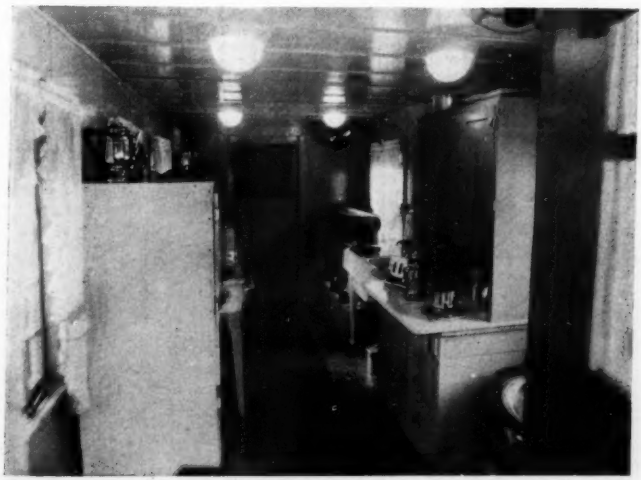
In providing Dr. E. A. White, Director of the C. R. E. A., and Mr. E. W. Hamilton, of the *American Thresherman*, as banquet speakers, the committee on arrangements also showed commendable foresight in introducing, as an extra dessert course, a magician whose ability to mend cable and produce coins from the air would be a boon to any rural service department.

Unique Electrical Display

Shown by New England Utility Company

By D. B. SISTARE

LAST summer an attractive little kitchen on wheels rolled out of Boston to answer the call of rural New England for modern electrical household appliances. For four months it traveled over roads in New Hampshire and Vermont. It traveled 1,350 miles to show more than 17,700 visitors, in their towns and cities, close to their homes, the complete line of appliances offered for their convenience and comfort by the Twin State Gas and Electric Company and associated companies.



Inside View of the Portable Electric Kitchen

"We have approximately 39,000 residential customers," says W. A. Buttrick, president of the company. "Our territory consists of small cities and a very large rural area. The traveling form of exhibit was conceived in our minds while we were discussing the holding of three electrical shows in three of our larger communities. It was felt that for the same money we could build a traveling exhibit, and visit every community served and use it, not once, but over a period of years." The exhibit was wired for water heater, range, refrigerator, ironer and various table devices. It was equipped with electrical fans for ventilation. The exterior was wired for lighting to give a floodlighting effect at night. On the rear porch an automatic electrically driven water pump was installed. This pump took its supply from a thirty-gallon reservoir underneath, and hot and cold water was available at all times.

The exhibit included a wide range of household appliances, from a white enamel electrical clock on the wall to a gleaming white Kelvinator electric refrigerator, which proved to be one of the most popular displays in the exhibit, largely, perhaps, because the idea of electric refrigeration must still be sold throughout most of the territory visited by the exhibit, and because the people in many of the places where the exhibit stopped to show its wares had not had much opportunity to examine an electric refrigerator, see it in operation and hear its operation and advantages for the modern home explained.

New "Petersime" Sales Policy

Ira M. Petersime & Son, pioneer manufacturers of all-electric incubators, announce that they have taken over all the sale activity on their product and that hereafter any correspondence relative to "Petersime" incubators should be addressed to their factory at Gettysburg, Ohio.

Wellington J. Smith Co., of Cleveland, formerly sales agents for this equipment, will continue to specialize in their own well-known line of "Smith Brothers" electric brooders.

Both incubator and brooder have been widely endorsed as important factors in rural electrification progress. Wherever high line service becomes available, poultrymen are taking advantage of the safety and economies of electric operation.

Billy (who caught his father kissing the maid): "Whatcha doin', Dad, kissin' the maid?"

Father: "Bring me my glasses, son; I thought it was your mother."

Here's the Little Kitchen on Wheels

Rural Rambles

Conducted by H. T. MURRAY

WITHOUT a few blow-outs along the road, there wouldn't be any tire industry.

KWH

Even rural electrification has a way of falling short of continuous perfection, but what Mr. Eugene Holcomb last month called the *rate of acceleration* keeps getting us on towards the goal. "It couldn't be done, but here it is!"

KWH

There isn't enough air in most of the tires that go flat and lay down on the job. "The trouble is," as a successful farmer over in Michigan remarked recently, "too many folks don't study a new idea thoroughly enough to make sure it's worth while, and then if they do decide to work that idea, they don't put enough effort or money into it to see it through to success."

He wasn't thinking only of other farmers.

KWH

This month's little pictorial exhibit qualified for publication while we were rambling through Wisconsin last fall.

Farmers have been hearing considerable about the new electrical hired man, and you know how fast a man's women folks can get the bad news about any new style or gim-crack that costs money. The woman who has it sure rejoices in letting the rest of the world know! Well, the serious thinkers who figure this farmer as a customer with what the trade calls a "big potential" have been worrying a bit about how to convert such hear-say into correct knowledge and equipment sales. Truth is stranger than fiction when it comes to filling a silo with a 5 H.P. motor, browning a turkey to the queen's taste in an electric oven, or taking a hot bath in your own porcelain tub upstairs instead of waiting in the kitchen for the rest of the family to go to bed. Or just waiting for some other Saturday night.

What we see with our eyes, either on the printed page or in photographs, or most convincing of all, *"in the flesh"* where we can touch it, is to most of us "correct knowledge." We accept it because it is more real, coming into our minds through *our own* eyes. It has been pretty hard, to date, for most farmers to *see* electricity at work. The power companies have had to take on the job of demonstrating, and it is just a matter of passing record that most of the old-line farm equipment makers and their dealers don't yet see that it's any of their business so to do.

So make a little note in your histories of one James Collins, who runs this "Farm Electric Co." up in Marshfield, and isn't afraid to say so to all who pass by his store-front. He undertakes wiring homes and barns, and the sale of all electric appliances the up-and-living farm family can attach to that wiring. From the trading center which is his headquarters and is served by a municipally-owned power company that can't merchandise, he pushes his "rural electric" sales and service plan the four ways of the wind into fertile

territory that is being plowed up for him by three or four other utilities.

There may be more contractor-dealers like Mr. Collins. He's the first we have met except one dealer who was getting off to a fair start a couple of years ago at Elyria, Ohio. His kind of "Rural Electrification Headquarters" set-up and "See what you want Here" merchandising plan are what the

farmers look for and don't find when they come to most towns, ready to buy. If the hardware and implement dealers don't tumble to their opportunity as the high lines multiply, farmers will go where electric motors and refrigerators and feed grinders and ranges *are understood* and *shown*.

Take another look at the printing on the awning. You'll see more rural dealers of this kind during the next few years.

KWH

To make trade more brisk, be sure you include a copy of the new University of Illinois Bulletin No. 332, "Electric Power for the Farm," in your current reading. It is dated June, when Prof. E. W. Lehmann was putting the finishing touches to the proofs down at Dallas, but it's fresh off the press. About 100 pages of practical help to any one selling the farmer, and free if you don't want too many copies, *and hurry*.

KWH

This month's little joke is a feature story in a venerable farm equipment journal, headed "An Engine That Displaces Electric Motors." But we won't pay our regular dollar prize even in Mex money for the privilege of asking who will take this gassy joke seriously. We had a Ford once with a cooling system that boiled at any notch on the spark, and what a bath that water would have given any bacteria-laden milking machine!

KWH

Rambling around quite a bit, we haven't found a dairy farmer yet who wouldn't throw out the best gas engine made if he could get central station electric service. Before 1930 ends, "hot water *by wire*" will mean a lot more in milk profits to the half million farmers who already know their electric motors too well to be kidded by any advertising hooey.

KWH

Here's to old Santa K.W.H. Claus! May his load increase as he brings new joy to living on country roads. It won't be long now before he can swap the reindeer for an electric-powered tractor.

Correspondence Course on A. C.

Practical Alternating Currents is the title of a new correspondence course announced by the University of Wisconsin. Simplified methods are used in the course, the only prerequisites being a knowledge of arithmetic and the ability to draw and measure straight lines and angles. The information that the electrician needs in working out the problems he is most likely to meet in the trade is presented fully and in detail, the announcement states.

Wisconsin University correspondence courses in electrical engineering, 28 in all, provide a comprehensive program of home study including practical mathematics, essentials of electricity, theory and operation of a. c. and d. c. machinery, illumination, central stations and distribution, wiring, telephony, radio, measuring instruments, storage batteries, transient electric phenomena, etc. Some of the courses are credited toward a university degree. Information may be obtained from the University of Wisconsin Extension Division, Madison.

Bob's Page

Devoted to Merchandising of Electrical Equipment in Rural Communities

Conducted by Robt. J. Fulton

Making Electric Goods Pay

LAST month we said that the PROFITS in your business *depend* on "TURNOVER".

It is easy to determine whether your turnover is speedy enough. Unless your gross business for the year exceeds your capital stock then your turnover is falling short.

Some merchants say they would rather make a larger profit on one article than a smaller profit on a number of articles. The ridiculousness of such an argument is best illustrated by the success of stores with records for frequent turnovers. Their profits may be small, but the great volume of sales makes up for the small returns on individual transactions.

Many merchants ask, "How can I increase my turnover?" The rules are simple and can be given as:

1. *Handle only staple, reputable goods.*
2. *Use your local newspapers constantly.*
3. *Utilize your windows and floor display space.*
4. *Do not overstock.*
5. *Concentrate on fewer lines.*
6. *Demonstrate.*

Do the people of your town stop in front of your store to admire the merchandise you have on display? Your windows should *make* people stop, look and then be led into your store. The feet may go in your store through the door, but the eyes go in first through the window.

Only one more month remains in this year, and plenty of customers are just waiting to come into the store that is clean and that has electrical things displayed so that they are appealing. December is just the time to go after the farmer for electric hammer mills, pump jacks, and water systems. What better Christmas present can a farmer give his family than a modern water system? And think of the seasonal interest in waffle irons, heating pads, corn poppers and the hundred other appliances through which electricity can add to holiday joy, now the old farm is hooked up to the high line!

Show the chore motor because the farmer needs this hired man all winter. Besides feed grinding, there is a lot of wood to saw—perhaps a lot of concrete or cement work to do. If you will take a pencil and paper and write down on one side what electric equipment or appliances you have to sell, then on the other side put down everything around the farm that they can be used for, the result will open your eyes to more sales and faster turnover.

To succeed, you must first "Plan Your Work" and then "Work Your Plan".

Your windows should make people stop, look and then be led into your store. The feet may go into your store through the door, but the eyes go in first through the window.

Pullin' Together
Power Companies—Private Plant Salesmen
—Wiring Contractors—Plumbers—
Implement, Hardware and other
Equipment Dealers
That all rural families may fully utilize the advantages
of electricity, and benefit by intelligent salesmanship

Some Methods for Promoting Rural Electrification*

By STANLEY F. BIDLACK
Chester Valley Elect. Co.

AS the company salesman is a valuable help in the rural development program, so is the rival dealer. The central stations should welcome high grade competition for it keeps their own men alert, and increases the consumption of current. When the central station paves the way with new types of farm equipment, independent dealers will follow. As long as their stock is reliable, they help the work along immensely. Private dealers are already so successful in distributing certain lines of farm equipment, that the central station can turn its effort in the field of newer developments, or to other lines where strong attention is more needed.

Let Competition Be Fair

All competition should be on a friendly, high grade basis. The central station should get its fair share of the business, but it should not offer inducements in either price or terms that efficient independent dealers cannot meet. The company should service appliances wherever purchased. If well conducted the service department can be made nearly self-supporting.

The independent dealer is often a contractor, too. If such is the case so much the better, for he will realize that the sale of appliances is limited where the wiring is inadequate. From the standpoint of the rural service agent, intent upon building up the farm load, the contractor who installs an inadequate job of wiring is a traitor to the cause.

The average farmer doesn't know a whole lot about wiring, any more than does the average city man. But the full use of electric current on the farm depends more on correct and adequate wiring than does the house in town, because the farm must be wired for power, as well as lighting, and household appliances. This calls for study in locating the meter and in wiring the buildings in adequate way for present or future power use, and still keeping the cost within reason.

Some contractors go after work wholly on a price basis and induce the customer to cut out everything but the barest essentials in order that their bids will not seem so large. In connection with wiring problems, the rural service agent ought to explain to each new customer, the necessity and economy of adequacy in wiring. He should gain the cooperation of high grade contractors for this purpose. He should recommend to customers only those whose work is satisfactory from the central station viewpoint. A standard specifications form might be of value.

Requiring inspection by the underwriters associations, as is the practice of many companies is worthwhile. Raising the standards in regards to convenience and adequacy as well as safety would be a very beneficial move.

Developing the rural territory is largely an educational problem

* Abstract of paper presented to National Electric Light Association.

Are You Getting Your Share of This Business?

Universal Batteries are being advertised to nearly six million farm families!

Many manufacturers of Farm Light Plants are using Universal "Nu-Seals" as standard equipment.

The Universal "Nu-Seal" Farm Light Battery is quality from top to bottom. It has every newest improvement . . . larger jars, extra thick plates, big sediment space, improved pilot cell and *double insulation!*

There is a size and capacity to fit any light plant ever sold.

The price meets all legitimate competition and leaves a nice profit for you. Our dealer proposition is a money maker. Write at once for new 1929 catalog and prices.

UNIVERSAL BATTERY COMPANY, 3414 S. La Salle St., Chicago, Ill.

Batteries for Every Purse and Purpose

AUTOMOBILE : RADIO : FARM LIGHT

Parts for all makes of Batteries

SHOP EQUIPMENT

UNIVERSAL BATTERIES

BROWER'S VIOLET LIGHT
BROODER
With New Heat Control
$8.50

Brower's Electric "Save-All" fully automatic brooders raise from 10 to 20% more chicks. Less attention, labor, time. Many exclusive features. Galvanized steel, with asbestos-filled, heat-saving lining and metal warmth-deflector. Pilot bulb is violet; heating unit enclosed, guaranteed. Special thermometer. Brower's heat control saves current. Shipped complete with cord, ready for socket. Order direct, if in a hurry, at these prices. State voltage.

75 day old chick cap. .....$ 8.50
125 day old chick cap. 9.75
300 day old chick cap. 13.50
600 day old chick cap. 18.00
1000 day old chick cap. 22.00

Write for BIG CATALOG showing over 350 items including Electric Storage Brooders, Feed Mixers, Alarms, Fountain Heaters, Time Switches, Heating Elements, Automatic Controls, Oat Sprouters, Egg Testers, and Sprayers.

BROWER MFG. CO., Dept. 2538, Quincy, Ill.

DEALERS—Write for proposition.

The states colleges, National Electric Light Association committees, and other organizations are aiding each other in this work. The manufacturers of equipment are advertising extensively. But a lot of local "missionary work" must still be done.

The company should see that all the literature prepared by these various agencies, gets into the hands of its farm patrons. A little monthly magazine, "*Electricity on the Farm*," is distributed by many companies, to a selected list of customers. It is a very practical help, as it contains timely articles on the utilization of electricity in farm work, as well as the advertisements of leading manufacturers.

Development of the rural territory will pay the utility company and also the farmer. It will greatly benefit the country at large for nearly a third of the entire population is directly dependent upon agriculture, and the rest of the country to only a slightly less degree. The opportunity for the central station is immense, there being at least 3,000,000 farm homes which can be connected, and as many farm businesses.

The organization to undertake this work will vary with conditions prevailing in each territory. The management will outline the general terms on which such business is acceptable, and will establish a policy of procedure. Execution of this policy is in the hands of the district manager, who will depend especially on the help of four factors: the rural service agent, the salesman, the meter reader, and the service man. The outside dealer and the electrical contractor will be of great aid to carrying out the program.

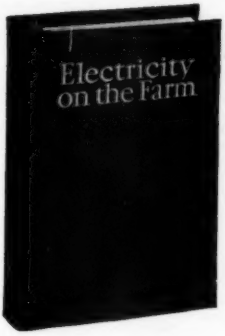
Development of the rural territory is largely a work of education. The central station must, like that ancient mariner, tell the story of rural electrification to all who will listen, and all who would not. The farmer must use electricity in quantity if the undertaking is to be successful.

The rural territory offers a great opportunity for developing an immense field. In spite of all that has been done up to date, the surface is hardly yet broken. Rural electrification offers an opportunity for advancing the economic and social welfare of the entire country, perhaps more than any single industry has done up to the present time.

New Farm Electrification Leaflet

The Westinghouse Electric & Mfg. Company has recently issued a new farm electrification leaflet entitled "Need Farm Work Be Drudgery." In the publication is a list of Westinghouse electric equipment for farm use. The electrical dealer, and the enterprising farmer will find many helpful suggestions in this booklet for improving and modernizing the farm, both as a home, and as a farm. It shows how electricity is now being used to eliminate the drudgery from farming.

Foreman: "How is it that although you and Rastus started work together, he has a bigger pile of dirt than you?"
Rastus: "Why, boss, he's digging de bigger hole."



A Binder for Your Copies of "Electricity on The Farm"

EVERY issue of ELECTRICITY ON THE FARM, as you know, is packed full of interesting and helpful ideas, facts, and other useful information on selling farm equipment which can be electrically operated. Of course you want to keep these handy for ready reference.

Why not make it easy to find what you want by keeping all your issues together in a binder? You would find this a great time saver and convenience.

We have a special one for subscribers with the words ELECTRICITY ON THE FARM printed in gold ink on the cover. The cost is only $1.50 and it holds the issues for a full year. Want one?

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A New Era in Poultry Raising

Raising Chickens in Storage Brooders is the latest fad in the poultry industry today. This radically different, almost revolutionary idea is rapidly demonstrating itself to be not only possible, but thoroughly practical in every day, commercial poultry raising.

Just a short time ago a few far-seeing manufacturers were advocating, to be a somewhat skeptical public, that chicks could be kept in storage brooders for the first few weeks of their lives without injury. Storage brooders were offered as a solution to the hatcheryman's surplus chick problems. Today almost every hatchery is equipped with some sort of storage-equipment. Nearly every hatchery sells a certain amount of two and three weeks old chicks. There is no longer any question about it—practice has proven that it is practical. Chicks cannot only be kept in close confinement for the first few weeks —they can be raised to maturity!

Among the new products recently offered to the chick-raising public is "Brower's Mammoth Broiler Brooder," manufactured and sold by the Brower Manufacturing Company, of Quincy, Illinois. It has been tried out in actual use and the results are said to be satisfying.

One hundred chicks were purchased for the experiment from the Ajax Hatcheries, of Quincy, Illinois. The chicks were of the regular Utility grade—the same as they ship to all parts of the country from the two large Ajax Hatcheries. They were put into a Brower Mammoth "Violet Light" Storage Brooder for the first two weeks, after which they were transferred to the Broiler Brooder. At six weeks of age there were ninety-four fine broilers weighing 1¼ to 1½ lbs. each. They were apparently as strong and hardy as free range chicks and were exceptionally well feathered and developed.

From the start the experiment was in charge of Mr. Leonard Brower who has this to say about them:

"They outgrew any chicks I ever saw. Everyone expresses amazement at their exceptionally rapid growth. Most people can hardly believe me when I tell them they have never had their feet on the ground, have never tasted green food, and have never felt direct sunlight."

These chicks were fed on water and Commercial Growing Mash alone, except for a supplement of Brower's "MOY," a mixture of Minerals, Cod Liver Oil and Yeast. At one time they developed cannibalism, but it was quickly checked by doubling the dosage of "Moy."

Some interesting figures are brought to light by this experiment:

Cost of 100 chicks	$14.00
Cost of feed	16.25
Cost of MOY	1.00
Total cost of 94, 6-week-old broilers, 1¼ to 1½ lbs. ea.	$31.25

A Prize Winner

California Short Course

The California Rural Electric Short Course will be held this year at the College of Agriculture, University of California, Davis, Calif., Dec. 9th-12th. A very elaborate program has been laid out, and papers presented will cover the following subjects:

Feed grinders and hay choppers, feeding value of ground and rolled grain and chopped hay, irrigation, soil and crop water requirements, fire protection on the farm, pumps, poultry, dairy barn construction and lighting, wiring of farm buildings, milking machines, dairy refrigeration equipment, etc.

A summary of the course will be given on the last day by Professor Ben D. Moses. The short course opens Monday morning, Dec. 9th at 9.00 a. m. and closes at 12.00 m. on Thursday, Dec. 12th.

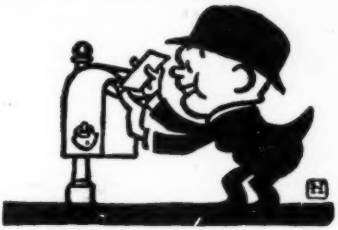
CLASSIFIED ADVERTISING

VACUUM CLEANER PARTS, attachments, armatures, bags, belts, brushes, bearings, wheels, assembly and motor parts and all else. Largest line. Highest quality. Lowest prices.

REBUILT CLEANERS. All makes. Any quantity. All fully guaranteed for one year. Equal to new in action and appearance. Can also supply 32-volt and non-electric. **Catalogs free.** UNITED ENTERPRISES, Inc., 13051 Athens Ave., Cleveland, Ohio.

Before the Christmas Rush—

Mail in your requests for information today, before the holiday rush. Then you'll have the data before the new year, which will enable you to start 1930 fully informed on the latest farming methods. The coupon below is for your convenience.



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80. Engine Driven
81. Water Wheel Driven
82. Wind Mill Driven
83. Storage Batteries for Plants

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94. Fans
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97. Air Purifiers
98. Insect Traps and Fly Screens
99. Food Mixers

SPECIAL CHRISTMAS LISTINGS

x—Electrical Toys
y—Christmas Tree Lights

DEALER EDITION
ELECTRICITY ON THE FARM
225 W. 34th St., New York

Without cost to me, please have manufacturers send complete dealer information on the Electric Equipment represented by the following numbers.

Name .....

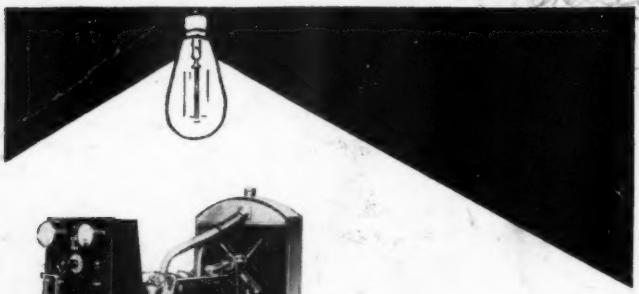
Address .....

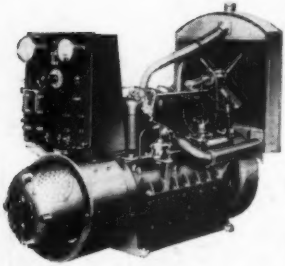
Nos. .....

Nos. .....

December, 1929

DE.3 *For Information on Any Equipment Not Listed Above, Write on Margin*





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Our catalogue will give you full particulars. Send for it.

UNIVERSAL MOTOR COMPANY
Dept. EF-12
Oshkosh, Wisconsin

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1½ · 2½ · 4 · 7½ · 10 · 12½ KW